

AMENDMENTS TO THE CLAIMS

1. (currently amended) An ~~[[E]]~~electrolysis installation, intended for the production of aluminium based on igneous electrolysis, comprising:

a potroom (1),

a plurality of electrolytic cells (2) arranged inside the potroom (1) so as to form at least one line with a main axis A,

a ~~so-called~~ «service~~[[>]]~~ aisle (15) parallel to the said line of cells and located inside the potroom (1),

~~and~~ at least one first mobile lifting and handling unit (8), ~~called a~~ «or travelling crane~~[[>]]~~, supported on a first runway (14) parallel to the main axis A of the line, and that can be moved above the said line of cells on the said first runway, ~~characterised in that it further comprises~~

at least one second mobile lifting and handling unit (20), ~~called the~~ or ~~[[>]]~~lateral portal crane~~[[>]]~~ and

a second runway (21) parallel to the main axis A of the line and independent of the first runway (14), in that the said second unit (20) is supported on the said second runway (21) and can be moved along the said second runway (21), underneath the first unit (8) and along the said line of electrolytic cells (2), such that the two lifting and handling units can be moved independently, and in that the said second unit (20) can be used to lift and handle liquid metal ladles and / or liquid bath ladles.

2. (currently amended) An ~~[[E]]~~electrolysis installation according to claim 1, ~~characterised in that~~ wherein the lateral portal crane (20) is equipped with a trolley (25) capable of being moved along a direction ~~preferably~~ substantially perpendicular to the main axis A of the line of cells.

3. (currently amended) An ~~[[E]]~~electrolysis installation according to claim 2, ~~characterised in that~~ wherein the trolley (25) is equipped with lifting means (26) and gripping means (27).

4. (currently amended) An ~~[[E]]~~electrolysis installation according to claim 3, ~~characterised in that~~ wherein the gripping means (27) comprises at least one ~~or several~~ means (28) of fixing the an object to be lifted and handled.
5. (currently amended) An ~~[[E]]~~electrolysis installation according to claim ~~2~~ or 3, ~~characterised in that~~ wherein the gripping means (27) is installed on a pivoting support (29) to enable rotation of the an element ~~or equipment~~ that ~~[[it]]~~ said gripping means supports about an axis B.
6. (currently amended) An ~~[[E]]~~electrolysis installation according to ~~any one of claim~~ ~~[[s]]~~ 2 to 5, ~~characterised in that~~ wherein the lateral portal crane (20) comprises at least one transverse beam (23, 23a, 23b) that is ~~preferably~~ substantially horizontal and perpendicular to the main axis A, and in that the trolley (25) moves on the said beam ~~(23, 23a, 23b)~~.
7. (currently amended) An ~~[[E]]~~electrolysis installation according to ~~any one of claim~~ ~~[[s]]~~ 2 to 6, ~~characterised in that~~ wherein the working range of the trolley (25) is such that its a main vertical axis B thereof only overhangs the service aisle, regardless of the position of the said trolley.
8. (currently amended) An ~~[[E]]~~electrolysis installation according to ~~any one of claim~~ ~~[[s]]~~ 1 to 7, ~~characterised in that~~ wherein the electrolytic cells (2) are fully or partly surrounded by working platforms (50).
9. (currently amended) An ~~[[E]]~~electrolysis installation according to claim 8, ~~characterised in that~~ wherein the service aisle (45) is located on a first level and the working ~~floors~~ (50) platforms are located at at least one second elevated level at a determined height H_b above the first level.
10. (currently amended) An ~~[[E]]~~electrolysis installation according to claim 9, ~~characterised in that~~ wherein the height H_b is ~~typically~~ between 0.5 m and 4 m.

11. (currently amended) An ~~[[E]]~~electrolysis installation according to claim 9 ~~or 10~~, characterised in that wherein the first level is preferably located at the ground level ~~of the ground~~ (3) outside the potroom (4).
12. (currently amended) An ~~[[E]]~~electrolysis installation according to ~~any one of claim[[s]] 8 to 11~~, characterised in that wherein the working floors (50) platforms comprise a service balcony (51) on the a side of the said aisle (15).
13. (currently amended) An ~~[[E]]~~electrolysis installation according to claim 12, characterised in that wherein the service balcony (51) is common to all said cells (2).
14. (currently amended) An ~~[[E]]~~electrolysis installation according to claim 12 ~~or 13~~, characterised in that wherein the working floors (50) platforms comprise floors (53) between the cells and in that the service balcony (51) is at the same level as the said floors (53) between the cells.
15. (currently amended) An ~~[[E]]~~electrolysis installation according to ~~any one of claim[[s]] 12 to 14~~, characterised in that wherein the working range L of the trolley (25) is such that the a main axis B of the trolley may also overhangs the service balcony (51).
16. (currently amended) An ~~[[E]]~~electrolysis installation according to ~~any one of claim[[s]] 1 to 15~~, characterised in that wherein the second runway (21) comprises a first running means (21a) elevated above the level of the service aisle (15) and a second running means (21b) that is located directly on the service aisle (15).
17. (currently amended) An ~~[[E]]~~electrolysis installation according to ~~any one of claim[[s]] 1 to 15~~, characterised in that wherein the second runway (21) comprises a first running means (21a) elevated above the a level of the service aisle (15) and a second running means (21b) that is located on a platform (19) with a determined height H_a above the said aisle (15).
18. (currently amended) An ~~[[E]]~~electrolysis installation according to claim 17, characterised in that wherein the height H_a is between 0.2 and 2.5 m.

19. (currently amended) An ~~[[E]]~~electrolysis installation according to ~~any one of claim~~[[s]] 12 to 15, ~~characterised in that~~ wherein the second runway (21) comprises a first running means (21a) that is elevated above ~~the~~ a level of the service aisle (15) and a second running means (21b) located directly on the service balcony (51) or located on a platform fixed ~~to it~~ thereto.

20. (currently amended) An ~~[[E]]~~electrolysis installation according to ~~any one of claim~~[[s]] 16 to 19, ~~characterised in that~~ wherein the elevated running means (21a) is ~~advantageously~~ fixed to ~~the~~ a structure (6) of the potroom (1).

21. (currently amended) ~~Use of an electrolysis installation according to any one of claims 1 to 20;~~ A method for the production of aluminium comprising using an installation according to claim 1.

22. (currently amended) A ~~[[P]]~~plant for the production of aluminium, ~~characterised in that it comprises~~ comprising at least one electrolysis installation according to ~~any one of claim~~[[s]] 1 to 20.